

## ACCOMMODATING ZONULAR MINI-BRIDGE IMPLANTS

### ABSTRACT OF THE DISCLOSURE

10       Surgical correction of presbyopia and hyperopia by a circularly distributed assembly of mini-bridges implanted between the interior surfaces of the ciliary muscle and the exterior surface of the lens capsule, for augmenting the transmission of the contraction force of the ciliary muscle/zonule assembly to the lens capsule. The lens is symmetrically squeezed by mini-bridges acting in  
15      concert with the ciliary muscle thus changing the curvature of the lens. The mini-bridges are composite synthetic muscles comprising either passive biocompatible mini-bridges made with polymeric gels, silicone polymers or a composite, electromagnetically or mechanically deployable mini-bridges, inflatable balloons or synthetic muscles. The surgical procedure comprises using a ciliary muscle  
20      relaxant to stretch the lens/zonules/ciliary muscle assembly. An ultrasonic biomicroscope (UBM) is then used to enable the surgeon to see the area for implantation and the mini-bridges and thus perform endoscopic or incisional surgery to implant the mini-bridges in and around zonular cavities.

DRAFTED BY DPD